UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,556	09/27/2001	Noriyuki Sato	31762-175249	8935

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EXAMINER
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ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/963,556	SATO ET AL.
	Examiner	Art Unit	
	Vu Le	2613	

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11 and 13* is/are allowed.

6)☒ Claim(s) *1-10,12 and 14-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/01*.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-
(1) an application for patent, published under section 122(b), by another filed in the United States before the
invention by the applicant for patent; or (2) a patent granted on an application for patent by another filed in the
United States before the invention by the applicant for patent, _except_ that an international application filed
under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an
application filed in the United States only if the international application designated the United States and was
published under Article 21(2) of such treaty in the English.

2.   **Claims 1-4, 6 are rejected under 35 U.S.C. 102(e) as being anticipated by**

Yona et al, US 2002/0152440.

(Note: "Header compression" is broadly interpreted as manipulating or modifying

header data in the event of packet loss during transmission)

Re claim 1, Yona et al discloses a transmission header compressing device (fig.

2: 210) comprising:

a header compressor receiving a moving-picture signal including coded moving-

picture data and a transmission header, and compressing the transmission header to

transmit the moving-picture signal selectively with the compressed transmission header

(260, para 0027; "PR" 260 serves to selectively repair i.e. "compress" lost packets of

incoming video stream 140 which represents coded moving picture data including

identification numbers or header data. The selective repair is dictated by "PA" 220 and

"GA" 250. See para 0027);

and a compression control circuit controlling said header compressor, and determining whether or not the moving-picture data included in the moving-picture signal are subjected to intra-frame coding to inhibit, if the moving-picture data are subjected to intra-frame coding, said header compressor from compressing the header (220 "PA", also fig. 3, para 0027 – para 0042; "PA" 220 serves to control packet repair i.e. compression by "PR" 20 by detecting whether the missing packet belongs to an intra frame or inter frame. See step 340 in fig. 3. If the missing packet belongs to an intra frame, no packet repair is necessary. See para 0030. Thus, skipping packet repair if it is an intra frame packet is by definition, "inhibiting" header compression as claimed since repairing a lost packet will ultimately replace header data also).

Re claim 2, the device in accordance with claim 1, wherein said compression control circuit references the moving-picture signal to determine whether or not the moving-picture data are subjected to intra-frame coding. (See para 0028 – 0030, also step 340 of fig. 3).

Re claim 3, the device in accordance with claim 2, wherein the moving-picture signal additionally includes first information for use in determining whether or not to inhibit compression. (See para 0028 – 0029. "first information" as claimed is interpreted as an indication of frame type that is checked periodically by "PA" 220. As a result of this frame type indication, "PA" controls whether packet repair is carried out by "PR" 260).

Re claim 4, the device in accordance with claim 1, wherein said compression control circuit determines whether or not the moving-picture data are subjected to intra-

frame coding on the basis of a decision signal, which is received in addition to the

moving-picture signal for use in determining whether or not to inhibit compression.

(Claim 4 has been analyzed and rejected w/r to claims 1-3 above).

Re claim 6, Yoda et al discloses a transmission header compressing device (fig.

2: 210) comprising:

a header compressor receiving a moving-picture signal including coded moving-

picture data and a transmission header from a moving-picture coding device, and

compressing the transmission header to transmit the moving-picture data selectively

with the compressed transmission header (260, para 0027; "PR" 260 serves to

selectively repair i.e. "compress" lost packets of incoming video stream 140 which

represents coded moving picture data including identification numbers or header data.

The selective repair is dictated by "PA" 220 and "GA" 250. See para 0027);

a compression inhibiting circuit for inhibiting said header compressor from

compressing the transmission header of the moving-picture signal under a rule (220

"PA", also fig. 3, para 0027 – para 0042; "PA" 220 serves to control packet repair i.e.

compression by "PR" 20 by detecting whether the missing packet belongs to an intra

frame or inter frame. See step 340 in fig. 3. If the missing packet belongs to an intra

frame, no packet repair is necessary. See para 0030. Thus, skipping packet repair if it

is an intra frame packet is by definition, "inhibiting" header compression as claimed

since repairing a lost packet will ultimately replace header data also. In effect, "PA" 220

serves to "inhibit" packet repair dependent upon whether the missing packet belongs to

an intra frame or inter frame);

and an inhibition information transmitter for transmitting information indicating

that the transmission header is inhibited from compression to the moving-picture coding

device that has transmitted the moving-picture signal (as discussed in the preceding

paragraph and furthermore, "PA" 220 serves to transmit an indication to "PR" 260

whether to repair lost packet dependent upon whether the missing packet belongs to an

intra frame or inter frame).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yona

et al, US 2002/0152440 as applied to claim 1 above and further in view of

Eyuboglu et al, US 5,541,854.

Re claim 5, Yona et al further discloses *"...wherein the moving-picture data are*

produced by dividing a frame of picture data vertically and horizontally into a plurality of

blocks of data and executing a particular kind of coding with each of the plurality of

blocks of data" (See para 0007, 0012 – 000015. Yona et al discloses H.26+ and MPEG

video coding standards, each encompasses the "dividing" step as claimed above);

Yona et al does not determine intra-frame coded data by determining *"...if a ratio*

of blocks of data which are intra-frame coded to the entire frame of data is higher than a

predetermined threshold" as claimed. Instead, Yona et al determines intra-frame coded

data by detecting "the indication of frame type" by reading frame headers (see para

0029). However, such convention as claimed is well known and used in packet video

communications as evidenced in Eyuboglu et al (see col. 11, lines 3-29).

Therefore, taking the combined teaching of Yona et al and Eyuboglu et al as a

whole, it would have been obvious to provide intra-frame coded data determination in

Yoda et al (discussed above) with intra-frame coded data determination in Eyuboglu et

al by evaluating whether a ratio of blocks of data which are intra-frame coded to the

entire frame of data is higher than a predetermined threshold. Since Yoda et al already

determines intra-frame coded data by sampling frame headers (see discussion above),

the proposed substitution would have been merely an obvious design alternative well

known in the art.

5.   **Claims 7-9, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Yona et al, US 2002/0152440.**

Re claim 7, claim 7 prescribed a moving picture coding device that further

comprises a header compression device of claim 1. Yona et al does not explicitly

disclose "*a moving-picture coding device comprising: an encoder for coding moving-

picture data selectively by intra-frame coding or inter-frame coding in dependence upon

a content of the moving-picture data...*" as claimed. However, such moving picture

coding device is implied in Yona et al through the disclosure of compressed video

packets that are produced through video compression standards such as H.261, H.263

and MPEG (see para 0007 – 0015). Thus, Official Notice is taken to note that it would

have been obvious and expected that any one of the video compression standards

mentioned above would have encompassed an encoder for coding moving-picture data

selectively by intra-frame coding or inter-frame coding in dependence upon a content of

the moving-picture data.

The resultant coded moving-picture signal in the form of compressed video

packets are then transferred to a transmission header compressing device (fig. 2: 210,

see also discussion w/r to claim 1 above) via a LAN (para 0020 – 0027), which follows

said moving-picture coding device (self explanatory w/r to preceding paragraph) and

compresses a transmission header (fig. 2: 210, see also discussion w/r to claim 1

above);

a header attaching circuit attaching a transmission header to the coded moving-

picture signal to form the moving-picture signal (Official Notice is taken to note that it

would have been obvious and expected that any one of the video compression

standards discussed in Yona et al, i.e. H.261, H.263 or MPEG, would have

encompassed a header attaching circuit for attaching a transmission header to the

coded moving-picture in the form of compressed video packets);

and a decision information producing circuit producing first information for use in

determining whether or not to inhibit the transmission header compressing device from

compressing the transmission header dependent upon whether or not intra-frame

coding is executed, and transmitting the first information to the transmission header

compressing device. (See discussion w/r to claims 1-4 & 6).

Re claim 8, the device in accordance with claim 7, wherein said decision

information producing circuit inserts the first information into the moving-picture signal to

transmit the moving-picture signal including the first information to the transmission

header compressing device. (See discussion w/r to claims 1-3).

Re claim 9, the device in accordance with claim 7, wherein said decision

information producing circuit transmits the first information to the transmission header

compressing device in addition to the moving-picture signal. (See discussion w/r to

claims 1-3).

Claim 12 has been analyzed and rejected w/r claims 7-9.

6.   **Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over**

Yona et al, US 2002/0152440 as applied to claim 7 above and further in view of

Eyuboglu et al, US 5,541,854.

Re claim 10, Yona et al further discloses *"...wherein the moving-picture data are*

produced by dividing a frame of picture data vertically and horizontally into a plurality of

blocks of data and executing a particular kind of coding with each of the plurality of

blocks of data" (See para 0007, 0012 – 000015. Yona et al discloses H.26+ and MPEG

video coding standards, each encompasses the "dividing" step as claimed above);

Yona et al does not explicitly disclose *"...said decision information producing*

circuit producing as the first information a ratio of blocks of data subjected to intra-frame

coding to the entire frame of data" as claimed. Instead, Yona et al determines intra-

frame coded data as the "first information" by detecting "the indication of frame type" by

reading frame headers (see para 0029). However, the step of evaluating "*a ratio of blocks of data subjected to intra-frame coding to the entire frame of data*" as claimed is well known and used in packet video communications as evidenced in Eyuboglu et al (see col. 11, lines 3-29).

Therefore, taking the combined teaching of Yona et al and Eyuboglu et al as a whole, it would have been obvious to provide intra-frame coded data determination in Yoda et al (discussed above) with intra-frame coded data determination in Eyuboglu et al by evaluating whether a ratio of blocks of data which are intra-frame coded to the entire frame of data. Since Yoda et al already determines intra-frame coded data by sampling frame headers (see discussion above), the proposed substitution would have been merely an obvious design alternative well known in the art.

7.   **Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yona et al, US 2002/0152440 in view of Eyuboglu et al, US 5,541,854.**

Re claim 14, claim 14 is a combination of claims 1-5 above. Thus, it has been analyzed and rejected w/r to claims 1-5.

Re claim 15, see claim 3.

Re claim 16, see claim 4.

Allowable Subject Matter

8.   Claims 11 and 13 are allowed.

9.   The following is an examiner's statement of reasons for allowance:

Claims 11 and 13 are discussed jointly. Both claims prescribe an embodiment as

illustrated in figure 8. Particularly, both claims similarly recite *"...an inhibition*

information receiver for receiving decision information indicative of inhibition of

compression of the transmission header from a transmission header compressing

device, which follows said moving-picture coding device and compresses the

transmission header; a coding control circuit for controlling said encoder to select intra-

frame coding in response to said inhibition information receiver receiving the decision

information...". These technical features are neither anticipated nor rendered obvious

by the prior art of record.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on
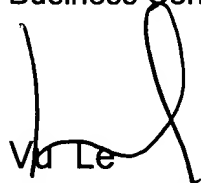
Statement of Reasons for Allowance."

Contact

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Vu Le whose telephone number is 703-308-6613. The

examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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